

## TITLE

BentGreen Cup for Above-Ground Synthetic Turf (aggregate (sand) filled and non-aggregate filled turf) and Carpeted Golf Greens

This application claims priority of US Provisional Patent Application

Number: 60/443,006

Filing Date: 01/29/2003

Title: BentGreen cup for above-ground synthetic turf or carpeted golf greens

## FIELD OF THE INVENTION

The invention relates to the game of golf. Specifically a golf hole cup device used in golf practice greens, making it possible to install practice greens on any hard surface, both portable or permanently installed greens, for use indoors and / or year-round use outdoors.

## BACKGROUND

Golf is a game where the ball is hit any number of times to achieve the ending result of a golf ball resting within the limits of a cup hole. This event is known in the rules of golf as a "holed" stroke. The player must record the number of strokes it takes from the teeing ground, "through the green" until the ball is holed. The abilities and skills necessary for any golfer to minimize the number of strokes, and therefore become a better skilled player is the quest of any serious player. Advancing the skills of a player takes many hours of practice and playing to achieve the necessary skills to "lower one's score."

It is common for an individual to spend many hours in practice to attempt to achieve lower scores and therefore become a "better player." The most often used method is putting

and chipping on a practice green. Either at a local golf club or practice facility, many hours are spent in the quest to advance one's skills. At times practice facilities have less than adequate practice areas or it is more feasible for one to practice at home or when time for practice is limited, using whatever device or method and wherever convenient. It is very popular for a golfer to use portable devices to practice and it is the dream of most golfers to have unlimited access to a practice green that is accessible. Yet having a private practice green creates additional problems. Having the right surface to practice on is vitally important and necessary to achieve proper, realistic practice that will aid in increasing the golfer's skill level. Many practice surfaces are poor renditions compared to playing on real greens at the local golf course.

Finally, if it were possible for a golfer to have a private practice green it still would need to be installed and maintained in such a fashion that practice would be valuable and their time well spent. If the golfer had the availability of a natural grass green, the ability to maintain it and the budget to keep it in the proper condition, their problem would be solved.

The best solution is a private practice green that is affordable and accessible. Therefore synthetic greens have become popular because of their surface quality and low or no maintenance makes practice viable and affordable. The problem still remains as to how a green must be installed and a green certainly must include one or several golf "holes."

The main feature of the present invention is it now makes the finest synthetic turf or carpeted surfaces more available to every golfer because they are easier to install and more affordable and require little or no maintenance compared to natural grass greens and the quality of the current turf products available have advanced in quality to properly simulate natural grass greens. The invention makes it possible for an individual to own their very own private practice green and because digging holes to create a golf hole is not

required, the invention makes private practice golf greens versatile for use anywhere, indoors, outdoors, or as the seasons dictate. My invention also makes it possible for portability of any practice green and for areas of limited seasonal play, they become a year-round practice green because moving the green to any surface can easily be achieved. Our invention makes installing a practice green very easy due to the fact that holes do not need to be created. A practice green can be installed literally anywhere because creating a hole for the cup has been eliminated. My BentGreen cup invention makes it possible to practice anywhere a smooth hard surface is available because digging a hole or raising the surface is not necessary to simulate and create a golf cup.

Previously, to create a golf cup in natural greens and synthetic turf or carpeted greens it was necessary to dig or create a hole in the sub-surface or raise up the green surface to create an ample space to install a golf cup to receive and hold a golf ball.

Synthetic greens sometimes utilize a foam or other type base material to raise the green surface to create an area for a cup hole.

Placing an in-ground cup was the only way to achieve the existence of a working golf cup.

## SUMMARY

I have created the ability of any synthetic turf or carpeted golf green to be installed with the BentGreen Cup which meets standard cup size requirements while resting directly on a hard surface to create a golf hole that will receive and hold a golf ball, without raising the surface or utilizing a sub-surface void to create a "hole".

## DESCRIPTION OF THE DRAWINGS

The accompanying drawings which are incorporated in and constitute a part of the specification, illustrate a preferred embodiment of the invention and together with the

general description of the invention given above and the detailed description of the preferred embodiment given below, serve to explain the principles of the invention.

Fig. 1 - Elevation View - BentGreen Cup

Fig. 2 - Cup Base Elevation

Fig. 3 - Cup Base Plan

Fig. 4 - Removable Flag Stick / Nylon Flag with Clear Flange Shown in Motion

Fig. 5 - BentGreen Cup - Shows Ball In Motion And Impact With The Clear Flange

The above general description and the following detailed description are merely illustrative of the generic invention, and additional modes, advantages, and particulars of this invention will be readily suggested to those skilled in the art without departing from the spirit and scope of the invention.

#### DETAILED DESCRIPTION

Reference will now be made in detail to the present preferred embodiments of the invention as detailed in the accompanying drawings. An above-ground golf cup device that simulates a standard golf cup, used in synthetic turf and carpeted practice greens. It can be used indoors or outdoors and for green installations that are permanent or portable on any hard surface.

Referring to Fig. 1 the BentGreen cup is comprised of a base plate 1, a white PVC cup ring 2, (3) retainer clips that attach the cup ring to the base plate 3, flag stick center fitting 4, a black ring farrell 5, a clear cup flange 6, a removable flag stick 7, and nylon flag 8.

The combination of these pieces make up the BentGreen Cup.

Referring to Fig. 1 in more detail -

1 - Base Plate - Figs. 1,2,3 - made of polycarbonate which is unbreakable and gives the

cups base the needed strength and integrity due to the fact that a flag stick and nylon flag will be placed into the center flag stick fitting and must be able to withstand outdoor wind conditions. This base plate is 0.040" thick, which allows a minimum elevation above the ground, not to raise the synthetic surface and create a rise in the area around the cup hole.

2 - Cup Ring - Figs. 1,2,3 - made of white PVC and is 1/8" sidewall thickness and the outside diameter matches a regulation golf cup hole 4 - 1/4". The PVC cup ring can be made to fit various pile heights of synthetic turf and carpeted surfaces, with or without foam backing. It can also accommodate aggregate (sand) filled turf and non-aggregate filled turf.

3 - Three Retainer Clips - Figs. 1,2,3 - Attaches the cup ring to the base plate through a mechanical connection of aluminum rivets. This process allows proper drainage of rainwater through the cups base (for outdoors installations). The (3) retainer clips (Fig.1,2,3) are also durable and add strength to the assembly.

Finally, use of the retainer clips also aids in the slowing of the golf ball as it enters the cup base and therefore becomes an important part of the overall device.

4 - Center Flag Stick Fitting - Figs. 1,2,3 - Attached to the base plate with an aluminum rivet. A small polycarbonate disc 1 - 1/4" in diameter is used to further stabilize the base plate and center flag stick fitting. The flag stick fitting is a combination of a 1/2" CPVC cap and pipe, along with the Black Ring Farrell 5, to elevate the Clear Cup Flange 6 to the proper elevation to achieve the proper action of the flange and cup to receive the golf ball and retain it in the cup base.

For optimum results and cup/ball action the dimension from the center of the Clear Cup Flange to the top of the turf should be 1 - 1/4" min to a maximum of 1 - 3/8".

5 - Black Ring Farrell - Referring to Figs. 1 & 4 - is used to retain the Clear Cup Flange 6 to the Flag Stick 7 whenever the flag stick is removed from the center Flag Stick Fitting 4.

6 - The Clear Cup Flange is the essence of the invention and gives it its unique action. It is used to stop the momentum of the golf ball as it approaches the golf hole and also serves to retain the golf ball in the cups base (refer to Fig. 5 - Showing ball in motion and impacting the Clear Cup Flange).

An added benefit of using the Clear Cup Flange is the sound that is made when the golf ball impacts it and falling into the cup base - creates a "plopping" sound that golfers prefer. Use of a Clear Flange also does not take away from the visual nature of seeing the golf cup without undo restriction and aids in the process of alignment of the golf shot.

7 - Removable White Flag Stick - Referring to Figs. 1 & 4

8 - Nylon Flag - Referring to Figs. 1 & 4

Referring to Figs. 2 & 3 - Note Retainer Clips are mechanically attaching the Cup Ring and Base Plate by use of aluminum rivets 5

Referring to Fig. 4 - Note Flag Stick is fitted into the Flag Stick Fitting (Fig. 1,2,3) using a Ring Adapter 9. The ring adapter further stabilizes the flag stick when placed into the flag stick fitting 4 (Figs. 1,2,3)

Referring to Fig. 5 - This drawing shows an animated detail of the inventions unique action of the golf ball approaching the cup and impacting the Clear Cup Flange (Figs. 1&4) and its resulting resting into the cups base Figs. 1 & 5